

REMARKS

After the foregoing amendment, claims 1-8, as amended, are pending in the application. Claims 1-4 have been allowed. Claim 5 has been amended to more to more particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants submit that no new matter has been added to the application by the Amendment.

Rejection - 35 U.S.C. § 102

The Examiner rejected claims 5-8 under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 6813230 (Ko et al.). Applicants respectfully traverse the rejection.

Ko et al. is directed to a physical identification data (PID) addressing method using a phase modulated wobble signal. Figures 7A-7C show respectively, the structure of a PID unit (7A), the structure of a sector including three repeated PID units (7B) and a sector mark indicating the beginning of each sector (7C). As described at col. 8, line 60 to col. 9, line 2 and Fig. 7A, the PID unit comprises a wobble sync portion having synchronization information, a wobble carrier portion comprising a pure wobble signal, a PID portion which is disclosed as containing phase modulated address information and an error detection code (EDC). As described at col. 9, lines 3-9 and shown in Fig. 7C, the address (PID) information is repeated three times in a sector period for enhancing the robustness of the address data. At col. 7, lines 49-58, Ko et al. states that "it is preferable to repeatedly record PID information than to increase the number of bits for error correction."

The structure of PID information recorded by one embodiment of the present invention is described at pages 85 and 98 and Figs. 24 and 25 of the application. As described at page 85, paragraph 269 and Fig 24 of the application, each recording block 403 includes four positional information units 404. Each of the positional information units 404 includes a positional information section 406 containing address information and a sync mark section 407. As described at page 98, paragraph 306, each positional information section 406 is a collection of 48 subdivided information units 408, each subdivided information unit being a series of 32 wobble waves of the same shape. Accordingly, each subdivided information units represents one bit of information, thereby making up the 48 bit positional code and its error detection code.

Amended claim 5 recites:

*An optical disk comprising a track groove including a plurality of positional information units, wherein:
each positional information unit includes a positional information section and a sync mark section,
each positional information section includes a plurality of unit sections,
each unit section has a repeated wobble pattern selected from a plurality of wobble patterns including a first wobble pattern having a first displacement shape and a second wobble pattern having a second displacement shape, and
the first displacement shape is defined so as to correspond to a signal waveform that rises relatively steeply and falls relatively gently compared with a fundamental waveform, and the second displacement shape is defined so as to correspond to a signal waveform that rises relatively gently and falls relatively steeply compared with the fundamental waveform.*

In order to anticipate a claim under 35 U.S.C. § 102, the reference must teach every element of the claim. MPEP § 2131. "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) and MPEP § 2131.

Amended claim 5 recites a positional information section containing address information. The positional information section consists of a plurality of unit sections, each of which unit sections consisting of a repeating wobble pattern. Ko et al. discloses PID portion containing address information. The PID portion is merely disclosed as being phase modulated. Accordingly, Ko et al. does not teach or suggest encoding each unit section of the positional information section by repeating a wobble pattern as recited in amended claim 5. In fact at col. 7, lines 49-57, Ko et al. teaches away from encoding each bit of the address with a plurality of wobble patterns by stating that it is preferable to repeat a PID rather than to increase the number of bits (i.e. the length of the address) for error correction.

Applicants submit that Ko et al. does not teach or suggest encoding a positional information section as a plurality of unit sections, where each of the unit sections is series of repeated wobble patterns, as recited in amended claim 5. Accordingly, for all the above reasons, Applicants respectfully request reconsideration and withdrawal of the §102 rejection of claim 5.

Further, it is respectfully submitted that since amended claim 5 has been shown to be allowable, claims 6-8 dependent on claim 5 are allowable, at least by their dependency on claim 5. Accordingly, Applicants respectfully request reconsideration and withdrawal of the § 102 rejection of claims 6-8.

Conclusion

Insofar as the Examiner's objections and rejections have been fully addressed, the instant application, including claims 1-8, is in condition for allowance and Notice of Allowability of claims 1-8 is therefore earnestly solicited.

Respectfully submitted,

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